

## **Section IV**

### **VA Workload Data Manipulations**

Many of the analyses conducted for ELDA projections use workload experience data files provided by VA. The most recent year of data available for these analyses is FY 2001. VA provided workload data for inpatient, outpatient, and prescription drug services. VA often captures its workload with definitions and units that are unique to their health care system, therefore, it is often necessary to manipulate the data for use in various analyses. The manipulations conducted on the workload data are described in subsequent sections. After these manipulations, the workload data is accessed for the Health Care Management analyses, Actual-to-Expected Analyses, Long Term Care, Non-Medical Services, and VA Unit Costs, as documented in those sections of the report.

#### ***VA Inpatient Workload Data***

VA captures the inpatient workload that it supplies in bed section files for both completed and incomplete (census file) stays. This workload includes acute, long term care, and non-medical bed stays. Workload data for inpatient care that VA purchases for veteran enrollees from the private sector is also provided in a fee-based workload database. All of these workload databases contain individual records for each stay with a scrambled SSN identifier. The scrambled SSN was matched against the scrambled SSNs in the FY 2001 master enrollment file to identify stays provided to veteran enrollees and to attach demographic data to the stay records (Enrollee Type, Priority Level, Age, Gender, etc.). Stays provided to non-veterans are excluded from the analyses.

#### **Inpatient Stay Sorting Criteria**

The inpatient workload is sorted into three major categories: Long Term Care (LTC), Non-Medical, and Acute. The VA workload experience from VHA facilities contains a bed section assignment for each record. This workload data is sorted into the three categories using the VA bed section mapping included as Exhibit IV-1, with one exception. Stays belonging to the Skilled Nursing Facility (SNF) bed sections are assigned to LTC or Acute depending on the DRG recorded for the bed section. VA staff determined that SNF bed section stays with a Psychiatric DRG were more likely to be psychiatric type stays than the traditional SNF type stays provided in the private sector. Therefore, SNF bed section stays with a Psychiatric DRG are assigned to the Acute category, while the remaining SNF bed section stays are assigned to LTC. The bed section categories used in the VA

bed section mapping are sorted into the three inpatient care categories according to the following table.

<u>Bed Section Categories Allocated to Each Inpatient Care Category</u>		
<u>Long Term Care</u>	<u>Non-Medical</u>	<u>Acute</u>
SNF (non-psych DRG)	Blind Rehab	Acute - General
Nursing Home	SCI	Acute - Psychiatric
STAR	Psych & PTSD Res Rehab	
	SA Res Rehab	
	CWT Program	
	Respite Care	
	Domiciliary	

The inpatient workload from the fee-based database does not include bed section assignments. It does, however, include a field that indicates if the stay is acute or LTC (non-medical stays are not purchased from private sector facilities). VA provided a key to this field, allowing the sorting of each stay. Once these assignments are complete, the Acute stays are subjected to additional criteria, which, at times, change the stay assignment from Acute to one of the other categories. This additional criteria is described in the next section.

#### Acute Stay Criteria

VA staff indicated that stays provided at certain LTC and Non-Medical facilities should always be considered the care type of that facility, even if the recorded bed section is Acute. These facilities include Nursing Home, Domiciliary, and PRRT facilities. Therefore, any acute bed sections that were coded at one of these facilities were re-assigned to the facility's inpatient bed care category.

The bed section stays remaining in the Acute category were then subjected to a bundling process to construct complete acute stay encounters equivalent to the private sector's method of recording acute inpatient stays. To accomplish this, the DRG recorded for each bed section was assigned to either Medical/Surgical or Psychiatric/Substance Abuse. The mapping of each DRG to these categories is included in Exhibit IV-2. Within each of these categories, bed section stays were bundled together if they met certain criteria.

For Medical/Surgical, any contiguous acute bed sections for a veteran enrollee in the same facility were appended together to form one acute stay. The admit and discharge dates were then revised to reflect the entire bundled stay, and a new length of stay was calculated. For example, if a veteran

enrollee had a 3 day stay in a Surgical ICU bed section and then transferred to a General Surgery bed section for 7 days, then this record was bundled into one stay with a 10 day length of stay. If however, the bed section stay was from a Medical/Surgical environment to a Psychiatric/Substance Abuse environment, or vice versa, the stays were not bundled together. The private sector would record this change of care environment as two separate inpatient stays, even if they were contiguous in the same facility.

For Psychiatric/Substance Abuse, contiguous acute bed sections for a veteran enrollee in the same facility were appended together to form one acute stay only if the recorded DRG for each bed section stay was the same. This criteria was imposed because changes in DRG within the Psychiatric/Substance Abuse environment also indicate a significant change of care that warrants a separate stay record.

After the bundling methodology was completed, the diagnoses data recorded for all of the stays were used to assign a DRG to each acute stay (both bundled and non-bundled stays). These DRGs were assigned using the APR-DRG Grouper.

Finally, when the VA bed section mapping was updated for FY 2001 workload data, it was discovered that the bed sections previously used for LTC psychiatric services were no longer being coded by VHA facilities and/or also being used for acute psychiatric services. As a result, none of the psychiatric bed sections were explicitly assigned as LTC psychiatric services. Consequently, stays that actually were part of LTC psychiatric services were still assigned as Acute in the analysis up to this point. To identify these stays and re-assign them to the LTC stay category, all of the psychiatric stays (using the DRG mapping) were summarized and reviewed by average length of stay. With VA assistance, it was determined that stays of 75 days or more would reasonably identify the LTC psychiatric stays. As a result, all psychiatric stays of 75 days or more were removed from the acute psychiatric workload and re-assigned to the LTC stay category.

#### LTC Stay Criteria

As documented in the “Inpatient Stay Sorting Criteria,” bed section stays with a bed section category of SNF, Nursing Home or STAR were assigned to the LTC stay category. This category also received additional stays from the Acute category as a result of the facility and LTC psychiatric criteria documented in the “Acute Stay Criteria” section.

### Non-Medical Stay Criteria

As documented in the “Inpatient Stay Sorting Criteria,” bed section stays with a bed section category of Blind Rehab, SCI, Psych and PTSD Res Rehab, Substance Abuse Res Rehab, CWT Program, Respite, or Domiciliary were assigned to the non-Medical stay category. This category also received additional stays from the Acute category as a result of the facility criteria documented in the “Acute Stay Criteria” section.

### FY 2001 Stay Criteria

After all of the criteria were applied to assign inpatient stays to the three inpatient care categories, the stays were subjected to further criteria to determine if they should be counted as a FY 2001 stay. Stays were considered as a FY 2001 stay if they qualified as one of the following:

- A completed stay with a discharge date during FY 2001. Length of stay (LOS) was calculated by subtracting admit date from discharge date (LOS = 1 if admit date same as discharge date) with a maximum of 365. If the admit date pre-dated FY 2001, the same calculation was used, and all days, including days prior to the beginning of the fiscal year, were counted, to a maximum of 365.
- A stay still in progress at the end of FY 2001 with an admit date pre-dating FY 2001. For these multiple year stays, a LOS of 365 was counted.

Stays still in progress at the end of FY 2001 with an admit date during FY 2001 were not counted for FY 2001. While these days are not included in FY 2001 as “run-out,” they are offset by the days allowed to “run-in” for stays that completed during FY 2001 with an admit date pre-dating FY 2001.

### ***VA Outpatient Workload Data***

VA captures the outpatient workload that it supplies in clinic stop record files. This workload includes up to twelve CPT codes recorded for each clinic stop record, as well as date of service and facility site of care. Workload data for outpatient care that VA purchases for veteran enrollees from the private sector is also provided in a fee-based workload database. All of these workload databases contain individual records with a scrambled SSN identifier. The scrambled SSN was matched against the scrambled SSNs in the FY 2001 master enrollment file to identify care provided to veteran enrollees and attach demographic data to the records (Enrollee Type, Priority Level, Age, Gender, etc.). Services provided to non-veterans are excluded from the analyses.

CPT codes are mapped to an outpatient Milliman health care service line using the CPT mapping in Exhibit IV-2. This mapping also includes Level II CPT codes, known as HCPCS codes. Not every published code is assigned to a health care service line. Unmapped codes are typically supplies, educational materials, non-medical transport, etc. that are not counted as health care services. If a single clinic stop record contains more than one code that falls into specific services, only one of these codes is counted. VA staff indicated that these codes should only be counted once because it is likely a situation where both the attending physician and nurse recorded a code for the same service. The services that are affected by this rule include Office Visits, Emergency Services and Physical Exams. VA also advised that Pathology panels are often coded by recording a code for each individual test in the panel, rather than using the CPT code reflective of the entire panel. Therefore, when individual CPT codes consisting of an entire panel were recorded, they were counted as one Pathology service.

#### ***VA Prescription Drug Workload Data***

VA captures the prescription drug workload that it supplies in clinic files with individual prescription detail. This workload includes a 30-day prescription equivalent count for prescriptions dispensed via mail order. Workload data for prescription drugs that VA purchases for veteran enrollees from the private sector is also provided. This data contains individual records with a scrambled SSN identifier. The scrambled SSN was matched against the scrambled SSNs in the FY 2001 master enrollment file to identify prescription drugs provided to veteran enrollees and attach demographic data to the records (Enrollee Type, Priority Level, Age, Gender, etc.). Prescription drugs provided to non-veterans are excluded from the analyses. For analyses used in ELDA, prescription drugs are counted using the 30-day prescription drug count provided in each record.

**Exhibit IV-1**  
**VA Bedsection Mapping for FY03 ELDA**

<b>Bedsection</b>	<b>Definition</b>	<b>Bedsection Category</b>
-99	99FY84 ONLY	Unclassified
1	ALLERGY	Acute - General <sup>1</sup>
2	CARDIOLOGY	Acute - General <sup>1</sup>
3	PULMONARY TB	Acute - General <sup>1</sup>
4	PULM NON-TB	Acute - General <sup>1</sup>
5	GERONTOLOGY	Acute - General <sup>1</sup>
6	DERMATOLOGY	Acute - General <sup>1</sup>
7	ENDOCRINOLOGY	Acute - General <sup>1</sup>
8	GASTROENTEROLOGY	Acute - General <sup>1</sup>
9	HEMATOLOGY/ONCOLOGY	Acute - General <sup>1</sup>
10	NEUROLOGY	Acute - General <sup>1</sup>
11	EPILEPSY CENTER	Acute - General <sup>1</sup>
12	MEDICAL ICU	Acute - General <sup>1</sup>
14	METABOLIC	Acute - General <sup>1</sup>
15	GEN(ACUTE) MED	Acute - General <sup>1</sup>
16	CARDIAC STEP DOWN	Acute - General <sup>1</sup>
17	TELEMETRY	Acute - General <sup>1</sup>
18	NEUROLOGY OBS	Acute - General <sup>1</sup>
19	STROKE	Acute - General <sup>1</sup>
20	REHAB MEDICINE	Acute - General <sup>1</sup>
21	BLIND REHAB	Blind Rehab
22	SPINAL CORD INJ	SCI
23	SCI OBSERVATION	SCI
24	MEDICAL OBSERVATION	Acute - General <sup>1</sup>
25	PSYC RES REHAB TRMT	Psych & PTSD Res Rehab
26	PTSD RES REHAB PGM	Psych & PTSD Res Rehab
27	SUB ABUSE RES REHAB	SA Res Rehab
28	HCMC CWT/TR	CWT Program
29	SA CWT/TR	CWT Program
31	GEM ACUTE MEDICINE	Acute - General <sup>1</sup>
32	GEM INTERMEDIATE	SNF <sup>2</sup>
33	GEM PSYCHIATRY	Acute - Psychiatric <sup>1</sup>
34	GEM NEUROLOGY	Acute - General <sup>1</sup>
35	GEM REHAB	Acute - General <sup>1</sup>
36	BLIND REHAB OBS	Blind Rehab
37	DOM CARE HMLS(DCHV)	Domiciliary
38	PTSD/CWT/TR	CWT Program
39	GENERAL CWT/TR	CWT Program
40	INTERMEDIATE MED	SNF <sup>2</sup>
41	REHAB MEDICINE OBS	Acute - General <sup>1</sup>
50	SURGERY (GEN)	Acute - General <sup>1</sup>
51	GYNECOLOGY	Acute - General <sup>1</sup>
52	NEUROSURGERY	Acute - General <sup>1</sup>
53	OPHTHALMOLOGY	Acute - General <sup>1</sup>
54	ORTHOPEDIC	Acute - General <sup>1</sup>
55	EAR,NOSE&THROAT	Acute - General <sup>1</sup>
56	PLASTIC SURGERY	Acute - General <sup>1</sup>
57	PROCTOLOGY	Acute - General <sup>1</sup>

**Exhibit IV-1**  
**VA Bedsection Mapping for FY03 ELDA**

<b>Bedsection</b>	<b>Definition</b>	<b>Bedsection Category</b>
58	THORACIC SURGERY	Acute - General <sup>1</sup>
59	UROLOGY	Acute - General <sup>1</sup>
60	ORAL SURGERY	Acute - General <sup>1</sup>
61	PODIATRY	Acute - General <sup>1</sup>
62	PERIPHERAL VASCULAR	Acute - General <sup>1</sup>
63	SURGICAL ICU	Acute - General <sup>1</sup>
65	SURGICAL OBS	Acute - General <sup>1</sup>
70	ACUTE PSYCH	Acute - Psychiatric <sup>1</sup>
71	LONG-TERM PSYCH	Acute - Psychiatric <sup>1</sup>
72	ALCOH DEPEND-HI INT	Acute - Psychiatric <sup>1</sup>
73	DRUG DEPEND-HI INT	Acute - Psychiatric <sup>1</sup>
74	SUBS ABUSE-HI INT	Acute - Psychiatric <sup>1</sup>
75	HALFWAY HOUSE	Unclassified
76	PSYCH MED INFIRM	Acute - Psychiatric <sup>1</sup>
77	PSYCH RES REHAB	Psych & PTSD Res Rehab
79	SPEC INP PTSD UNIT	Acute - Psychiatric <sup>1</sup>
80	NURSING HOME CARE	Nursing Home
81	GEM NHCU	Nursing Home
83	RESPITE CARE	Respite Care
84	PSY SA (INTER CARE)	Acute - Psychiatric <sup>1</sup>
85	DOMICILIARY	Domiciliary
86	DOM SUBSTANCE ABUSE	Domiciliary
87	GEM DOMICILIARY	Domiciliary
88	DOM PTSD	Domiciliary
89	STAR I,II,&III PGMS	STAR
90	SUB AB STAR I,II,III	STAR
91	EVAL/BRF TRMT PTSD	Acute - Psychiatric <sup>1</sup>
92	PSYC-GENERAL INTER	Acute - Psychiatric <sup>1</sup>
93	HI INT GEN PSCH-INP	Acute - Psychiatric <sup>1</sup>
94	PSYCHIATRIC OBS	Acute - Psychiatric <sup>1</sup>
98	NON-DOD BEDS	Unclassified
99	DOD BEDS	Unclassified

<sup>1</sup> If the bedsection is coded by a Nursing Home, SNF, Domiciliary, or PRRT Facility then it is not considered to be the indicated bed type. Instead it is classified according to the treating facility.

<sup>2</sup> Unless determined to be a psychiatric stay.

**Exhibit IV -2**  
**DRG and CPT Code Mapping for FY03 ELDA**

<b>HSC Code</b>	<b>Type of Service</b>	<b>Procedure Codes (DRG or HCPCS)</b>	<b>Comments</b>
	<b>Inpatient Hospital</b>		
	Non-Maternity		
1	Medical	9-35, 43-48, 64-74, 78-102, 112, 115-118, 121-145, 172-190, 202-208, 235-256, 271-284, 294-301, 316-333, 346-369, 376-377, 385-390, 395-399, 403-405, 409-414, 416-423, 444-460, 462-467, 469-470, 473-475, 487, 489-490, 492, 504-511	Reflects DRG Grouper 17 & 18
2	Surgical	1-8, 36-42, 49-63, 75-77, 103-111, 113-114, 119-120, 146-171, 191-201, 209-234, 257-270, 285-293, 302-315, 334-345, 353-365, 392-394, 400-402, 406-408, 415, 424, 439-443, 461, 468, 471-472, 476-486, 488, 491, 493-503	Reflects DRG Grouper 17 & 18
3	Psychiatric	425-432	Reflects DRG Grouper 17 & 18
4	Alcohol/Drug	433-438	Reflects DRG Grouper 17 & 18
	Maternity		
5	Deliveries	370-375, 391	Reflects DRG Grouper 17 & 18
6	Non-Deliveries	378-384	Reflects DRG Grouper 17 & 18
	<b>Ambulatory</b>		
8	Allergy Immunotherapy	95115-95199	
9	Allergy Testing	95004-95078	Count Tests
10	Anesthesia	00100-00841, 00843-00849, 00858-00945, 00947-00954, 00956-01959, 01962-01963, 01965-01966, 01969-09999, 99100-99142	
11	Cardiovascular	92950-92971, 92975-92979, 93000-93350, 93539-93556, 93600-93799, G0004-G0007, G0015-G0016, M0300-M0302, S3902-S3904, S9025, S9109, S9472	
12	Consults	99241-99275	
13	Emergency Room Visits	99217-99220, 99281-99288, G0244	
14	Glasses/Contacts/Hearing Aids	92325-92326, 92340-92342, 92370, 92390-92392, S0500, S0580-S0590, V2020-V2599, V2700-V2781, V2799, V5011-V5298	
15	Hearing/Speech Exams	92506-92510, 92551-92599, V5008-V5010, V5299, V5362-V5364	
16	Immunizations	90471-90749, G0008-G0010, G0190-G0192	
17	Inpatient Visits	90816-90829, 99221-99239, 99290-99299, 99300-99319, 99356-99357, 99430-99431, 99433-99449, H0008-H0011, H0017-H0019, S9526	
18	Maternity Deliveries	00850-00857, 00946, 00955, 01960-01961, 01967-01968, 59400-59430, 59500-59524, 59526-59614, 59618-59622, 59898-59899	Only count cases for codes 59400-59410, 59510-59515, 59610-59614. Codes with assistant surgeon or anesthesia modifier, or with specialty = anesthesia, are included for procedure and charges, but do not result in a case.
19	Maternity Non-Deliveries	00842, 01964, 59000-59350, 59812-59871, 59898-59899	Must count cases separately for codes 59000-59350, 59812-59871, 59898. Codes with assistant surgeon or anesthesia modifier, or with specialty = anesthesia, are included for procedure and charges, but do not result in a case.



**Exhibit IV -2**  
**DRG and CPT Code Mapping for FY03 ELDA**

<b>HSC Code</b>	<b>Type of Service</b>	<b>Procedure Codes (DRG or HCPCS)</b>	<b>Comments</b>
20	Miscellaneous Medical	36415, 90901, 90911, 90918-90999, 91000-91299, 92018-92287, 92311-92313, 92315-92317, 92330, 92335, 92352-92358, 92371, 92393-92499, 92502-92504, 92511-92526, 92531-92548, 93875-93990, 94010-94799, 95250, 95805-96004, 96100-96117, 96150-96155, 96400-96549, 96567-96571, 96900-96999, 97802-97804, 99000-99070, 99090-99091, 99170, 99175-99199, 99360, A4650-A4929, A6000-A6406, G0001-G0002, G0025-G0027, G0108-G0118, G0128, G0166-G0167, G0175, G0184-G0187, G0193-G0195, G0197-G0201, G0237-G0239, G9001-G9016, J7330-J7340, J7500-J7599, J8499, J8510-J9999, K0415-K0416, M0075-M0100, P9010-P9615, Q0083-Q0085, Q0144, Q0163-Q0181, Q0183-Q0185, Q2001, Q3014, S0012-S0014, S0088, S0091, S0155-S0157, S0170, S0172-S0176, S0177-S0183, S0187, S0189, S0630, S0820-S0830, S1025, S2202, S3818-S3837, S3900, S5000-S5001, S8110, S8950, S9015, S9023, S9055-S9056, S9075, S9090, S9140-S9141, S9435-S9470, S9473-S9474, S9526-S9529, S9533, V2785-V2790	
21	Office/Home Visits	99201-99215, 99321-99355, 99358-99359, 99361-99380, 99499, G0179-G0182, S0220-S0260, S0340-S0342, S9083, S9088	
22	Outpatient Psychiatric & Alcohol/Drug	90801-90815, 90830-90899, H0001-H0007, H0012-H0016, H0020-H1005, M0064, S9475	
23	Pathology	80048-89399, G0103, G0107, G0123-G0124, G0141-G0148, P2028-P7001, Q0091, Q0111-Q0115, S2120, S3600-S3708	
24	Physical Exams	99382-99387, 99392-99397, 99401-99429, G0101-G0102, S0605-S0612	
25	Physical Medicine	97001-97750, 97799, 98925-98929, G0129, Q0086	
27	Radio logy	70000-79999, A4641-A4647, A9500-A9700, G0030-G0050, G0122, G0125-G0126, G0130-G0132, G0163-G0165, G0173-G0174, G0178, G0188, G0196, G0202-G0236, G0242-G0243, Q0035, Q0092, Q3001-Q3012, R0070-R0076, S8030-S8092, S9024	
28	Surgery	I0021-36410, 36420-55899, 56405-58301, 58340-58960, 58999, 59525, 60000-69020, 69100-69990, 92973-92974, 92980-92998, 93501-93536, 93561-93572, G0104-G0106, G0120-G0121, G0127, G0168, S0206, S0400, S0601, S2052-S2115, S2140-S2180, S2205-S2250, S2300-S2411, S3906, S8001, S9022, S9085 except codes listed under Sterilizations.	
29	Sterilizations	55250, 56301-56303, 58600-58615, 58662, 58670-58671	
30	Therapeutic Injections	90281-90399, 90780-90799, J0120-J7320, Q0081, Q0136, Q0160-Q0161, Q0187, Q2002-Q2022, Q3013, Q9920-Q9940, S0009, S0016-S0087, S0092-S0096, S0171, S5002-S5014, S5022	
32	Vision Exams	92002-92015, 92310, 92314, 99172-99173, S0592, S0620-S0621	